

- 4 We will complete the diagnostic assessment during the first 2 weeks of the process. We will administer our Supervisory Opinion Questionnaire (SOQ) to the remaining supervisors and managers not included in the analysis assessment. This will provide us with a profile of the overall groups' strengths and weaknesses, so that training can be focused specifically on the needs of your people. The profiles of strengths and weaknesses for each individual will also help us to follow up and maximize their personal development.
- 5 Together, we will generate a supervisory behavior model. We will design the supervisory workshops based on the weaknesses we observed, and reconfirmed by the diagnostic questionnaire administered to your supervisors and managers. This program will be designed by the 4th week.
- 6 We will initiate a process in the 1st week to communicate specific LCSC's findings, proposals, areas of focus, and priorities to all departments. This will ensure that each group understands their part in achieving overall objectives, the strategies to be utilized in achieving specific deliverables.
- 7 We will develop operating profiles in the first 9 weeks of the change process. This is the process of identifying all of the activities, volumes, standards, associated skills levels, quality levels, service levels and document current systems needs.
- 8 Data development is the process where we observe activities, and teach your people to make observations to set benchmarks. We will collect information with your supervisors and managers to establish realistic planning guidelines that they can use with confidence for planning and follow up purposes. The data gathered will also be used to complete force sizing models to establish short range production planning requirements.

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- 9 We will upgrade the management operating systems with the supervisors and managers to provide all of the currently missing elements.

- Forecasting - mix, evaluation, cycles
- Accurate planning guidelines
- Staffing requirements determination
- Effective daily plans
- Work assignment and follow-up
- Departmental and individual productivity reporting
- Performance to plan and feedback - quality, service, cost
- Lost time identification and documentation

- 10 A Quick Results Program will occur during the first 10 weeks of the project. These are elements of the system which can be installed prior to the long term cultural change phase of the project. These action steps are outlined in our Quick Results Schedule.

- Align organization to focus on value added activities
- Area Layout
- Documentation of core flows
- Definition of skill deficiencies
- Correct gaps in training and OTF development
- Design Hopper - sample order generator to gauge quality and capacity utilization

- 11 We will review your current work mix and make recommendations to balance the resources to clarify responsibilities, and more effectively control the work processes.

- 12 Preliminary procedures will be written to provide answers to system questions that may arise during the change process.

- Purpose - Why each system element exists?
- Responsibility - Who prepares, reviews and takes action from each element?
- Frequency - How often is each system element prepared?
- Distribution - Where do copies of each element go?
- Preparation - Where does data come from and how is it used?

- 13 Management workshops will start in the 3rd week so that managers are prepared to support and reinforce the more in depth workshops that the supervisors will be going through, and be prepared to co-facilitate those sessions in later workshops.
- 14 Supervisory workshops will start in the 4th week of the change process. These workshops will cover both the technical aspects of supervision, and the tactical/interpersonal side of dealing with their people. The program will involve workshop sessions, to establish the concepts of effective supervision, as well as one on one follow-up with the supervisors to help them apply the concepts in real life situations. We will coach them on appropriate behaviors required to meet expectations. These workshops support the system upgrades and assist the supervisors in identification of barriers to productivity, quality and service. These workshops will also provide the basic skills necessary to effectively deal with the barriers identified.
- 15 We will, with your people, enhance the employee skills development process. We will review the selection process to ensure proper job requirements are met. We will upgrade training materials to include "as is" activities / steps within the work flows. We will incorporate on the floor supervisory follow up and coaching to facilitate the mastering of work activities.
- 16 Employee skills training programs may be jointly enhanced for key activities that associates perform. Working with technical advisers from your organization, we will determine the best methods for various key activities, and then design programs to teach these methods to future trainees. We will also assess the skills flexibility for current and expected requirements. We will schedule training where needed and focus coaching to specific steps within the work processes. This will include integrating your existing training materials into an ongoing associate training program. Together with management, we will determine the requirement of such programs by the 6th week.
- 17 Dry / Wet running is the process where supervisors and managers can test and practice using the various controls to demonstrate the capacity and gain confidence in the reliability of the expectations that have been set. Dry / Wet running includes testing proposals on operating system upgrades, skills development enhancements, and sample order "hopper" generator system.

18. Weekly progress review meetings will be held between DB&A and the management of LCSC to review the project schedule, measure the progress accomplished to date, identify barriers to future installations, and prepare required action plans to prevent technical and tactical barriers impeding progress.
19. The change process involves all employees associated with LCSC, using the systems and workshops to identify problems causing lost time and taking appropriate corrective action. This is the point where the final productivity commitments are reached. Our staff will work one-on-one with management to ensure that they truly understand their new roles and achieve their performance improvement goals.
20. A Resource Appraisal to identify and respond to additional opportunities for improvement in the next area of the order cycle is an additional service that is offered. The extent and cost for this service will be determined based on the size and scope. The timing should be based on the progress made by and the ability of your people to maintain the installations on their own.
21. A final procedures manual will be turned over to you in the 20th week, providing documentation of all systems and procedures that have been designed and installed. This manual provides assistance for training new supervisors and maintaining the installations in the future. This manual will be given to your people on diskette <MSWord> so they can maintain and upgrade your management operating system as your business climate dictates.

Executive Update

**EXECUTIVE UPDATE  
FINAL REPORT PHASE I  
QUICK INSTALLATIONS**

Date April 23, 1997

To Krista Tillman, AVP  
BellSouth Interconnection Services

From James LaRue, Chief of Operations  
DeWolff, Boberg and Associates

Project = 9706 - Bell 6

Project LCSC (Local Carrier Service Center)

- This project involves the LCSC's located in Birmingham, Al. and Atlanta, Ga., and the service support groups located at the downtown Atlanta Building.
- The project was authorized for a 22 week period - to start March 17, 1997 and complete August 15, 1997. We are working in the seventh week and this is the final report. For more detail, look at project phases in this write up and in the "Summary of Findings and Approach."
- The purpose of the project is to accelerate Operational Readiness. Four key deliverables of this project include:
  - Detail process flows that are validated, tested and measured
  - Improve Training process that delivers qualified candidates
  - Define key Performance indicators.
  - Enhance and install management operating system to effectively manage the Key Performance Indicators.
- To summarize, the major benefits of this effort are:
  - Improved operational efficiency (reduce head count requirement by 51)
  - Enhanced service quality to CLECs
  - Assures Operational Readiness to meet end of year CLEC forecasts
  - Significant ongoing expense reduction

To date, the program is ahead of schedule. Phase I activities (7 weeks) included installation of some "quick installations" initiatives that began March 17, have been completed and will formally close out May 9.

## Executive Update

Detail, as a reference point the center operated at 0.50 LSR's per hour (3.75 per day) at the beginning of the project. BellSouth has set a target of 3.75 LSR's per hour (28 LSR's per day). Theoretical capacity based upon manager's estimates, calculates to 4.27 LSR's per hour (32 per day). Theoretical capacity is based on the current mix and level of automation. The fundamental barrier to exceed the target is that the input volume is not in BellSouth's control. In addition, to test the capability should not be done with live orders. Therefore, what is needed is a means to control the work input to test performance (quality, service, and productivity). The hopper concept with a backlog of test orders is being developed/installed to enable to test current capability ensuring operational readiness.

### PROJECT PHASES - See "Summary of Findings and Approach"

**Quick Installations** - Weeks 1 through 7 - Phase I of the project will focus on gaining control of the work and establishing the correct management behaviors / disciplines.

**Main Installation** - Weeks 8 through 15 - Phase II of the project will focus on testing the capability of the group, and increase the requirements to approximate theoretical capacity. Installation of systems for controlling performance. Schedule remedial training.

**Adjust and Follow Up** - Weeks 16 through 22 - Phase III of the project will set new targets (raising the bar), incorporating new products, perpetuating performance and making adjustments as required.

### PROJECT UPDATE

Project is on last week of Phase I. Currently, 12 items are in progress and 15 items are completed. One item behind schedule. Have plan to recover in two weeks. We project that by the end of Phase I all items but project management will be done. Five items are ahead of schedule in installation phase two. In summary, there are three organizations that DB&A is concentrating:

1. **Operations** - Working with Bill Bolt and the LCSC management to gain control of the work by the supervision spending more time with the employees and getting a handle on fundamental volumes, production numbers, backlogs, current employee skills, and department capability.
2. **Support** - Working with Eddie English and the support organizations to get them closer to the detail and focus on those activities that affect the performance on the floor concentrating in organization, skills, and the hand-off between support and operations.
3. **Training** - Working with Barbara Ayers to upgrade the delivery of the training material, testing that material, update the content of the presentation, and dramatically shorten the learning cycle for UNE and more complex work.

#### I. Operations - Detail Write Up

**Control of Work** - Steps have been taken to gain control of the work. Two of the most significant steps are:

## Executive Update

1. Development of process flows and procedures to identify the work
2. Installation of a backlog control to manage work

All process flows have been detailed. Procedures are being tested.

Backlog controls were designed and installed with the front line supervision to focus on fundamentals of running the business, i.e. backlog levels, distribution, rate of input and rate of processing. As a result, work has been redistributed for balance of the workload and for improved cycle time. The front line managers have begun to recognize differences in individual performance (quality, service, and rate of production), by following up every two hours with every employee. The data collected on the backlog control is summarized on a managers report each day and reviewed with the director. Demonstrated a significant improvement in Birmingham (LSR's/Hr). Atlanta will follow as volume picks up. For further details, see attached findings and approach chart.

**Management Behavior / Disciplines - Roles and Responsibilities** were developed for every level. They were developed with Bill Bolt and his staff. Identified and listed current supervisory activities that were interfering with performance enhancement. In summary, a manager should spend 6.5 hours per day, (70%+ of his / her day) should be spent on the floor with the service representatives. During the analysis 12% of the supervisor's time was spent with their people. We estimate at this time that the supervisors are spending approximately 30% to 35% with their people. The rest of the day the time is spent on other activities such as administrative or activities that the support organization should be handling. To help with the supervisory contact with the employees, new floor plans have been developed, where the service representatives in a "U shaped" layout with the supervisor in the middle. Tiffany Ray has received the layout and is preparing for implementation.

## II. Support - Detailed Write Up:

**Force Sizing / Forecast Feedback Loop** - Jim Freeman is responsible of developing a force sizing model for the LCSC. The model is an activity based model that currently uses supervisory estimates to determine the hours required to complete the work and the total hours required on roll to support those hours. The variables associated with the model are volumes, mechanization fallout, reasonable expectations, and current productivity levels. The ability to model different situations has been built in.

For the short term, the focus is placed on developing the feedback loop, rather than completing the development of the forecast. Volume to forecast is about 10-20%, but resources applied are on target to forecast. Thus, the critical information needed is the capability of the organization as it is currently crewed. The actions required are to keep the capability ahead of the actual volumes coming into the centers. Such capability should be tested with the hopper concept.

## Executive Update

**Project Schedule** - The goals for the support organization. The goal is to insure that BellSouth is prepared for Local Interconnections with the required processes, systems, center organization, and skilled personnel. The criteria for success has also been defined for his four support managers: resale, facility based, provisioning maintenance, and training. The strategy for catching up is to get closer to the detail by getting on the floor. A review meeting to review the status of the project schedule has been implemented. Need to compliment the detail available in the plan.

**Capability Issues** - LCSC has hired resources to forecast the volume that is forecasted to enter the centers. The problem is that these resources are largely untested. Since volume has not materialized, one aspect of the project is to address the volume issue, but not to wait to be tested with live orders. To do this, we must introduce artificial work volume into the centers, to test the theoretical capacity. Currently, Martha Jackson has assigned a driver to this project. A method to implement this project has been designed. Action item has gained momentum and we are on schedule.

### 3. Training - Detailed Write Up:

**Selection & Screening** - The fundamental skills required to already have for LCSC candidates include: visual perception of names/numbers/acronyms, typing and reading. Current screening identifies that service representatives should take the GQT (General Qualifications Test). The BST Job Title/Test Matrix shows that the CS-TAP is required to be taken by all candidates and keyboard tests (DEST or CTT) are also included. The situation that needs to be corrected is that we have extreme variance in the skill level of the candidates while in training. The training was not designed to overcome those shortcomings. The cause is that some of these tests have been optional, and there is a plan is needed to remedy this situation.

Interviews will be conducted to select candidates for UNE and complex work at beginning of training cycle.

### Course Material and Classes

We participated in the entire single line residential / business training. During that course we identified improvement opportunities that should be made in the delivery, course content, testing, modular training, and sequencing, the actual training content. The improvements identified are as follows:

The current residential/business single line training took 4 weeks and 2 days to complete. We have targeted to reduce this training cycle to 3 weeks.

Learning cycle will be accelerated to upgrade in content and sequencing.



## Executive Update

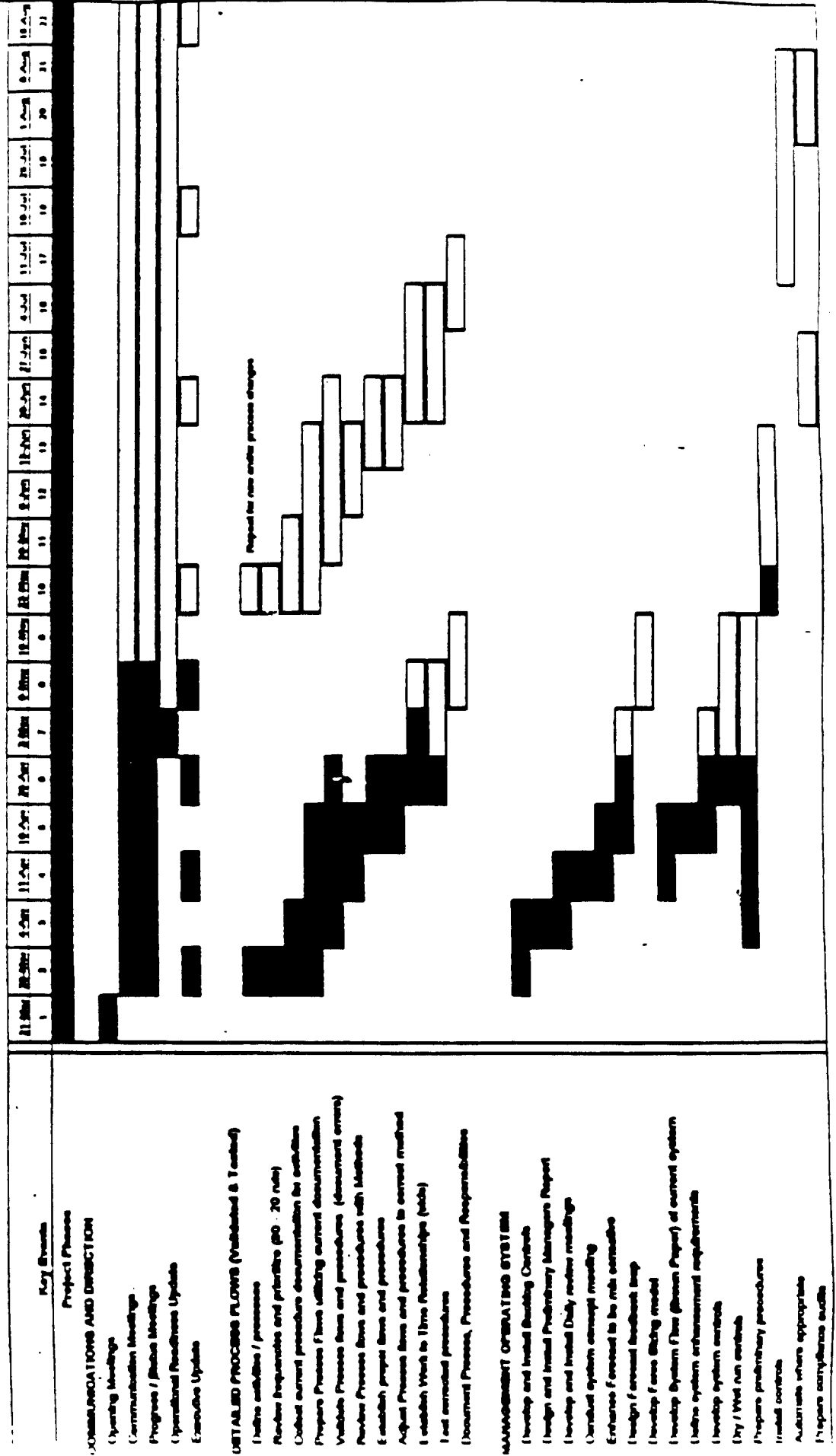
We expect to reduce most of these timetables and use the time for remedial training

Training questionnaire will be issued to the LCSC representatives who have been on the floor for 4 weeks since completing training. The questionnaire is designed to provide identify the areas that need further support on the floor, and were not covered in training sessions. Skills charts are being developed and maintained by the Managers to identify for each individual representative for remedial training and on the floor coaching

## OPERATIONS KEY EVENTS SCHEDULE

[illegible]

# OPERATIONS KEY EVENTS SCHEDULE



WILL SOUTH LSCB  
ATLANTA, GA

STATUS: COMPLETE COMPLETED

REPROGRESS

RED IN PROGRESS

## SUMMARY OF FINDINGS AND APPROACH

			PHASES FOR DELIVERABLES		
AREAS	FINDINGS	PROPOSALS	QUICK INSTALLATIONS PHASE I	INSTALLATION PHASE II	ADJUST & FOLLOW UP PHASE III
MONI OPERATING SYSTEM (MOB)	ELEMENTS EXIST BUT REQUIRE UPGRADES	DESK AND IN-PLANT FEEDBACK		INSTALL IN-PLANT FEEDBACK LOOP INSTALL PERFORMANCE CONTROLS	UPGRADE FORECAST FORMALIZE PROCEDURES
WORK PROCESS	NEEDS BETTER DEFINITION AND SIMPLER NEEDS TO INTERNALIZE UP GRADES	INSTALL THEORETICAL AND PRACTICAL AND AN IN-PLANT FEEDBACK LOOP			UP GRADE TO NEWLY DEVELOPED PRODUCTS AND AUTOMATION
EMPLOYEE SKILLS	INCOMPLETE TRAINING (DETAILED CONTENT) LACKS OFF-SUPPORT AND EVALUATION	DETAILED TRAINING REQUIREMENTS DETAILED TRAINING REQUIREMENTS		DETAILED TRAINING REQUIREMENTS DETAILED TRAINING REQUIREMENTS	IMPLEMENT COACHING AND DEVELOPMENT PROCEDURES IDENTIFY AND SCHEDULE REMEDIAL TRAINING REQUIREMENTS
MANAGEMENT	LACKS STRUCTURED PARTICIPATION	DETAILED TRAINING REQUIREMENTS		DETAILED TRAINING REQUIREMENTS DETAILED TRAINING REQUIREMENTS	FOCUS ON PERFORMANCE
BEHAVIOR		DETAILED TRAINING REQUIREMENTS		DETAILED TRAINING REQUIREMENTS DETAILED TRAINING REQUIREMENTS	
TECHNICAL		DETAILED TRAINING REQUIREMENTS		DETAILED TRAINING REQUIREMENTS DETAILED TRAINING REQUIREMENTS	
QUALITY / SERVICE	INEFFECTIVE MEASURES	DETAILED TRAINING REQUIREMENTS		DETAILED TRAINING REQUIREMENTS DETAILED TRAINING REQUIREMENTS	OPERATING PROBLEMS CONTINUOUS IMPROVEMENT
LABOR UTILIZATION	DOCUMENTED 15% LABOUR WASTED	DETAILED TRAINING REQUIREMENTS		DETAILED TRAINING REQUIREMENTS DETAILED TRAINING REQUIREMENTS	DETAILED TRAINING REQUIREMENTS DETAILED TRAINING REQUIREMENTS
QUALITY AND STRATEGIES	LACKS STRUCTURE AND INTEGRATED PLAN	DETAILED TRAINING REQUIREMENTS		DETAILED TRAINING REQUIREMENTS DETAILED TRAINING REQUIREMENTS	DETAILED TRAINING REQUIREMENTS DETAILED TRAINING REQUIREMENTS
			SUMMARY		
COMPLETE			88%	0%	0%
BEHIND SCHEDULE			6%	0%	0%
NOT STARTED			0%	19%	100%

**EXECUTIVE UPDATE  
FINAL REPORT  
PHASE I - QUICK RESULTS**

Date: May 9, 1997

To: Krista Tillman, Operations Vice President  
BellSouth, Interconnection Services

From: James LaRue, Chief of Operations  
DeWolff, Boberg and Associates



Project #: 9706

Project: LCSC (Local Carrier Service Center)

- This project involves the LCSCs located in Birmingham, Al. and Atlanta, Ga., along with the service support groups located at the BellSouth Center Atlanta.
- The project was authorized for a 22-week period - to start March 17, 1997 and to finish August 15, 1997. We have completed the seventh week and this is the final report for Phase I of the project. For more detail, look at project phases in this write-up and in the attached "Summary of Findings and Approach."
- The purpose of the project is to accelerate Operational Readiness. Four key deliverables of this project include:
  - Detailed process flows that are validated, tested and measured.
  - Improved Training process that delivers qualified candidates.
  - Define Key Performance Indicators.
  - Enhance and install Management Operating System to effectively manage the Key Performance Indicators.
- The major benefits of this effort are:
  - Improved operational efficiency.
  - Enhanced service & quality to CLECs.
  - Assured Operational Readiness to meet end-of-year CLEC forecasts.
  - Significant ongoing expense reduction.

## **Executive Update Continued – Phase I**

### **I PROJECT PHASES**

- A. Quick Results - Weeks 1 through 7 – Phase I** of the project focused on gaining control of the work and establishing the correct management behaviors / disciplines.
- B. Main Installation - Weeks 8 through 15 – Phase II** of the project will focus on testing the capability of the group, and will tighten the management routines/systems for controlling performance. Increasing capability towards theoretical capacity is inclusive of working at the right quality and providing competitive service at the appropriate cost. BellSouth has set a target of 3.73 LSR's per employee hour (28 LSRs per day/employee). Theoretical capacity has been set using managers' estimates calculated to 4.27 LSR's per employee hour (32 per day/employee). Also, the theoretical capacity is based on the current volume mix and level of automation. The fundamental barrier to meet the target is twofold: the volume input, and the quality of the orders received from CLECs. Both barriers are not in BellSouth's control; to stay ahead of the requirements we will avoid testing the teams' capability through live orders. Therefore, what is needed is a means to control the work input and the work mix to test performance (quality, service, and productivity). "The Hopper" is a process that validates such capability by having a ready backlog of test orders to supplement the orders received. The concept of introducing test orders is being developed and installed to ensure operational capabilities are ahead of the requirements.
- C. Adjust and Follow Up - Weeks 16 through 22 - Phase III** of the project will set new targets (raising the bar), incorporate new products, perpetuate performance, and make adjustments as required.

### **II PROJECT UPDATE**

We are on the 8<sup>th</sup> week of the project, Phase I is complete. To date, the program is ahead of schedule. Phase I activities (7 weeks) included most "quick result" initiatives that began March 17, and have been completed by May 2nd. Currently, in total, 12 items are in progress, 15 items are completed, there are 5 items ahead of schedule in the implementation of Phase II, and 1 item is behind schedule. The item that is behind schedule is the formalizing of the overall plan. We have an action plan to complete this item in two weeks; we will complete the detail, formalize it on paper, and incorporate it into the total project plan. During Phase I, DB&A approached the implementation of quick results through individual strategies for each organization affected by the project. There are three areas that were concentrated on:

## Executive Update Continued – Phase I

1. **Operations Organization** – With Bill Bolt we are developing the LCSC's management to gain control of the work by having the managers spend more time with each employee. This will enable them to get a handle on fundamental volumes, production numbers, backlogs, current employee skills, and department capability.
2. **Support Organization** - With Eddie English we are developing the support organizations to increase synergy with operations by getting support closer to the detail, and focusing on those activities that affect performance. Getting closer to the detail means to give greater emphasis to the hand-off from the support groups to the operating groups.
3. **Training Organization** - With Barbara Ayers we are developing the training organization by upgrading the delivery of the training material, developing/installing/testing the material covered in training, updating the content of the presentation, and dramatically shortening the learning cycle for UNE and more complex work.

### III. Operations Organization – Write up of key details:

A. **Improved Control of the Work** - Steps have been taken to gain control of the work. Two of the most significant steps are:

1. Development of process flows, with proper methods to complete the work.
2. Installation of a backlog control to manage work.

All process flows have been detailed and are being tested. Backlog controls were designed and installed with the front-line supervision to focus on the fundamentals of running the business (i.e., backlog levels, distribution of work, rate of input, and rate of processing). As a result, the work has been redistributed for better balance of the workload, resulting in improved response time. The front-line managers have begun to recognize and act on differences in individual performance (quality, service, and rate of production) by following up every two hours with every employee. The data collected on the backlog control is summarized on the manager's report each day and should be reviewed with the director. A significant productivity improvement has been demonstrated in Birmingham. Atlanta will follow as volume picks up.

## **Executive Update Continued – Phase I**

**B. Management Behavior / Disciplines - Roles and Responsibilities** were developed with Bill Bolt and his staff for every employee and management level. We identified and listed current supervisory activities that were interfering with performance enhancement. In summary, a manager should spend 6.5 hours per day (70%+ of his / her day) on the floor with the service representatives. During the analysis period, 12% of the managers' time was spent with their people. We estimate at this time that the managers are spending approximately 30% to 35% of their working hours with their team. The increase in supervisory time is primarily due to changing the focus of the manager from actually handling the work (clarifications, difficult orders, etc.) to coaching employees to complete the work themselves. This expands the managers' effectiveness. Currently, the remainder of the manager's day is spent on other activities such as administrative work or other duties required in a start-up operation. To help supervisory contact with employees new floor plans have been developed placing the service representatives in a "U shaped" layout (with the manager in the middle). Tiffany Ray has received the layout and is preparing for implementation.

### **IV. Support Organization – Write up of key details:**

**A. Force Sizing / Forecast Feedback Loop – DB&A** along with Jim Freeman is responsible for developing a Force Sizing Model for the LCSC. The model is activity-based allowing for the determination of the resources required to complete the work. The current version of the model uses management estimates, which later will be standardized through observation. The variables associated with the Force Sizing Model are: volumes (forecasted and actual) by product, level of mechanization, reasonable expectations, and current productivity levels. The ability to model different scenarios has been built into the algorithm.

For the short term, the focus is placed on developing the feedback loop rather than completing the development of the forecast. Actual LSR volume to forecast is running about 10-20%; but the resources BellSouth has applied are on target to forecast. Testing is required to keep the capability ahead of the actual volumes coming into the centers. Such capability is being tested by work group and by product type with the "Hopper" concept.

**B. Project Schedule –** The goal is to insure operational readiness with the required processes, systems, organization, measurements, and skilled personnel to handle/process orders competitively within established service levels. The action items required for success have been defined for/by the support group managers. The strategy for accelerating the implementation of action item initiatives is to get support closer to the detail of the operation. A staff meeting to review the status of the project schedule has been implemented. What is needed to bring this item up to schedule is compliment the detail and to formalize the plan.



## **Executive Update Continued – Phase I**

C. **Capability Issues** - LCSC has hired the resources to handle the volume forecasted to enter the centers. However, the resource capacity is largely untested since the volume/mix has not materialized. One of the deliverables in the project is to address the testing capability issue ahead of the actual requirements. The "Hopper" will test the capacity of the center by introducing artificial work volume into the center. Progressively testing the theoretical capacity for an expected work mix will generate real available capability for each team. Currently, Martha Jackson has been assigned as the driver for this project. A method to implement this initiative has been designed and is currently under testing. The action items have gained momentum and we are on schedule to move from a testing mode to implementation.

### **V. Training Organization – Write up of key details:**

A. **Selection & Screening Process** – Some of the fundamental skills required from a potential service representative candidate include: visual perception of names/numbers/acronyms, typing, and reading. The current screening process requires potential service representatives to take the GQT (General Qualifications Test). The BST Job Title/Test Matrix requires that the CS-TAP is taken by all candidates, along with keyboard tests (DEST or CTT). What needs correction is the variance in the skill level of the candidates while in training. The training can be more effective with more homogeneous groups. Another part of the skill variance results from some tests being optional. And yet the variance can be improved through better planning.

There is a plan in place to remedy variances in the skill level of the candidates. The training sequence of the different types of products should be based on the individuals previous experience. Further interviews will be conducted to select candidates for UNE and complex work at the beginning of the training cycle to properly group candidates with similar strengths. Along this vein, skills charts are being developed and maintained by the Managers to identify each individual representative for remedial training and on the floor coaching.

## Executive Update Continued – Phase I

B. **Content of Course Material and Testing** – We attended the entire single line residential / business training sessions. During that course we identified improvement opportunities that should be taken advantage of in the delivery, testing, modular training, sequencing, and the actual training content. The current residential/business single line training took 4.4 weeks to complete. We would like to reduce this training cycle to 3.0 weeks. Learning cycles will be accelerated due to upgrades in material content and sequencing of modules. We expect to reduce most of the training timetables, and use some of the time for testing and remedial training. The training questionnaire is designed to identify the areas that need further support from the training organization and/or management. We expect the training cycle for facility based orders to be reduced to one fifth of the current cycle.

## SUMMARY OF FINDINGS AND APPROACH

Date Updated: May 2, 1997 Week 7 of 22

			PHASES FOR DELIVERABLES		
AREAS	FINDINGS	PROPOSALS	QUICK RESULTS PHASE I	MAIN INSTALLATION PHASE II	ADJUST & FOLLOW-UP PHASE III
MGMT. OPERATING	LEMENTS EXITS, BUT REQUIRES	DESIGN AND INSTALL ELEMENTS	DESIGN AND INSTALL ELEMENTS	INSTALL FORECAST FEEDBACK LOOP	UPGRADE FORECAST
SYSTEM (MOS)	UPGRADES		INSTALL PERFORMANCE CONTROLS	INSTALL PERFORMANCE CONTROLS	FORMALIZE PROCEDURES
WORK PROCESS	IELDS BETTER DEFINITION, AND SIMPLER	INSTALL PREDICTABILITY OF EXECUTION	INSTALL PREDICTABILITY OF EXECUTION	UP GRADE TO NEWLY DEVELOPED	UP GRADE TO NEWLY DEVELOPED
	IELDS TO INTERNALIZE UP GRADES	AND KNOW HOW TO RUN THE PROCESS	DESIGN, VALIDATE, TEST ALL FLOWS	DESIGN, VALIDATE, TEST ALL FLOWS	PRODUCTS AND AUTOMATION
EMPLOYEE SKILLS	INCOMPLETE TRAINING - DELIVERY & CONTENT	ALL THE OPERATIONS TRAINING	CORRELATE COMPREHENSION TESTING TO FLOOR PERFORMANCE	CORRELATE COMPREHENSION TESTING TO FLOOR PERFORMANCE	IMPLEMENT COACHING AND DEVELOPMENT PROCEDURES
	LACKS ON THE FLOOR SUPPORT AND VALUATION	DEVELOP PERFORMANCE REPORTS	INCORPORATE FLOWS IN TRAINING	INCORPORATE FLOWS IN TRAINING	IDENTIFY AND SCHEDULE REVISUAL TRAINING REQUIREMENTS
MANAGEMENT	LACKS STRUCTURED PARTICIPATION	DEVELOP BEHAVIOR MODEL	DEVELOP MONITORING AND COACHING PROCEDURES	DEVELOP MONITORING AND COACHING PROCEDURES	FOCUS ON PERFORMANCE
BEHAVIOR		VALIDATE AND INSTALL	IMPLEMENT LAYOUT	IMPLEMENT LAYOUT	
MANAGEMENT	PASSIVE IN ASSIGNMENT / FOLLOW UP	PROACTIVE ENGAGEMENT	FOLLOW UP ROUTINES TO ENGAGE THE	FOLLOW UP ROUTINES TO ENGAGE THE	FOLLOW UP ROUTINES TO ENGAGE THE
ATTITUDES			ONE-ON-ONE DIAGNOSTIC FEEDBACK	OPERATING PROBLEMS	OPERATING PROBLEMS
QUALITY / SERVICE	NO EFFECTIVE MEASURES	DEVELOP TESTING PROCESSES	IMPLEMENT HOPPER	IMPLEMENT HOPPER	CONTINUOUS IMPROVEMENT
		DEVELOP REPORTS	QUALITY & CYCLE REPORTING	QUALITY & CYCLE REPORTING	
LABOR UTILIZATION	DOCUMENTED 15 - 39% LABOR WASTED	REDUCE LOST TIME THROUGH TRAINING	ESTABLISH WORK TO TIME RELATIONSHIPS (RE'S)	ESTABLISH WORK TO TIME RELATIONSHIPS (RE'S)	THE RE'S AND PERFORMANCE FACTORS TO FORCE SIZING MODELS
		AND SUPERVISORY INTERVENTION	UTILIZE HOPPER TO IMPROVE CAPABILITIES	UTILIZE HOPPER TO IMPROVE CAPABILITIES	TEST MAXIMUM CAPABILITY THROUGH HOPPER ORDERS
GOALS AND	LACKS SYNERGY AND INTEGRATED	REFINE THE OBJECTIVES AND MEASURES	CLARIFY EXPECTATIONS & ACTION	CLARIFY EXPECTATIONS & ACTION	MONITOR ATTAINMENT TO GAINS PROD
STRATEGIES	PLAN	IMPROVE SYNERGY SUPPORT & OPERATIONS	EXECUTE THE PLAN, WITH FREQUENT REVIEW	EXECUTE THE PLAN, WITH FREQUENT REVIEW	QUALITY AND SERVICE OBJECTIVES RESULTS
			SUMMARY		
COMPLETE			88%	6%	0%
BEHIND SCHEDULE			6%	0%	0%
NOT STARTED			0%	25%	100%

## EXECUTIVE UPDATE

### PHASE II - MAIN INSTALLATIONS

Date: July 8, 1997

To: Krista Tillman, Operations Vice President  
BellSouth, Interconnection Services

From: James LaRue, Chief of Operations  
DeWolff, Boberg and Associates

Project #: 9706

Project: LCSC (Local Carrier Service Center)

- This project involves the LCSCs located in Birmingham, AL and Atlanta, GA, along with the service support groups located at the BellSouth Center Atlanta.
- The project was authorized for a 22-week period - to start March 17, 1997 and to finish August 15, 1997. This is the status report for the end of Phase II of the project.
- The purpose of this project is to accelerate Operational Readiness. Four key deliverables of this project include:
  - Detailed process flows that are validated, tested and measured.
  - Improved Training process that delivers qualified candidates.
  - Define Key Performance Indicators.
  - Enhance and install Management Operating System to effectively manage the Key Performance Indicators.
- The major benefits of this effort are:
  - Improved operational efficiency.
  - Enhanced service & quality to CLECs.
  - Assured Operational Readiness to meet end-of-year CLECs forecasts.
  - Significant ongoing expense reduction.

## **L PROJECT PHASES**

- A. Quick Results - Weeks 1 through 7 - Phase I** of the project focused on gaining control of the work and establishing the correct management behaviors / disciplines.
- B. Main Installation - Weeks 8 through 15 - Phase II** of the project focused on testing the capability of the group, and tightening the management routines/systems for controlling performance. Increasing capability towards theoretical capacity is inclusive of working at the right quality and providing competitive service at the appropriate cost. Theoretical capacity has been set using managers actual observations calculated to 3.98 LSRs per employee hour (30 per day/employee). Note; the theoretical capacity is based on the current volume mix and level of automation. "The Hopper" is a process that validates the center's capability by having a ready backlog of test orders to supplement the orders received. The concept of introducing test orders was developed and successfully installed and is currently being used to ensure operational capabilities are ahead of the customer requirements. (see current results and capabilities)
- C. Adjust and Follow Up - Weeks 16 through 22 - Phase III** of the project will set new targets (raising the bar), incorporate new products, perpetuate performance, and make adjustments as required. Also, we expect to continue to make progress in alleviating fundamental barriers that are not in BellSouth's control. The fundamental barriers are the lack of predictability of work volume input, and the lack of completeness (quality) in the orders received from CLECs. Therefore, the continued use of The Hopper will be needed until better forecast from the CLECs is available. Also, a process needs to be installed to provide feedback to the CLECs about their level of incomplete/incorrect orders. LSRs with incomplete or erroneous information make it necessary to request for clarification thus delaying the processing time and increasing the amount of rework. For example the percentage of AT&T and MCI LSRs needing clarification the week of June 25th was 64.6%. The average number of times these LSRs were sent back in order to complete the processing was 1.7. This high level of clarifications suggest improvement is required in the CLEC's preperation of the LSR, (Local Service Request). The amount of time that is required to process an order including clarification is more than twice what it should take at standard without the rework.

## **II. PROJECT UPDATE**

We completed the 15<sup>th</sup> week of the project on June 27<sup>th</sup>. Phase II is now complete. To date, the program is ahead of schedule both against schedule and in results. All of the scheduled items are completed (32 Key items). The remaining 16 activities in Phase III are in progress and expected to be completed on or ahead of schedule. For more detail, look at project phases in this write-up and in the attached "Summary of Findings and Approach."

There are three areas of concentration:

1. **Operations Organization** – Along with Bill Bolt, Tom Moran, and Bill Thrasher we are developing the LCSC's management to increase the control of the work by having the managers internalize an employee follow-up routine. This will enable the managers to shift work where required, identify operating opportunities, maintain volumes, production numbers, backlog status, current employee skills, quality and service levels, and department capability.
2. **Support Organization** – Along with Eddie English and Diane Chang we are developing the support organizations to continue to increase synergy with operations by aligning the organizations under singular measurable goals.
3. **Training and Development** - We are developing a new training organization that is responsible for the employee's continuous development process. There are shared responsibilities between the support and operating organizations for the management of the process. However, key employees responsible for continuous development will report directly to the heads of LCSC's operations and support. This enhancement in training is geared to further accelerate the preparation and delivery of training material, developing/installing/testing material covered in training, updating the content of the presentation as enhancements to products are made, and dramatically shortening the total learning cycle for all employees.

## **II. Operations Organization – Write up of key details:**

### **A. Improved Control of the Work**

#### **Phase I, (Quick Results)**

- Process Flows were developed to define the proper methods to process work and Backlog Controls were installed to understand and control work volume levels.

#### **Phase II, (Main Installation)**

- Process flows have been validated and tested to ensure quality and accurate processing. In addition, work instructions have been prepared which provide step by step instructions for order processing.
- Backlog Controls were enhanced to measure Service, Quality and Cost. Cost factor is measured as LSRs / Hour. Quality is measured by two methods: Percent First Time Quality and Service Orders pending on the Questionable Activity Report. Service indicators are measured by the gross cycle time of an LSR and the speed in which Service representatives answer the phone. A Director's Report has been installed that summarizes the key operating indices which are reviewed daily by the Center Directors.
- The Order Tracking System has been enhanced to provide greater definition to the types of LSRs being processed and the reasons that LSRs are going to clarification. The Order Tracking System is also providing data on processing duration and clarification duration.

### **B. Management Behavior / Disciplines**

#### **Phase I, (Quick Results)**

- Management Roles and Responsibilities were defined and work area layouts were designed.

#### **Phase II, (Main Installation)**

- The percent of time that the Managers spend with the team members continues to increase. The supervisory time has increased from 12% of the manager's day, measured during the Analysis; to 30% at the end of Phase I, to about 65% currently. This increased supervision has improved first time quality and service demonstrated by a reduction in escalation's by as much as ½ at the AVP level.
- A Continuous Development Process has been developed to highlight and address employee training and/or skill deficiencies.
- The new floor layouts are implemented into the 14th floor, in Birmingham, where the LCSC operations will move August 17th. In Atlanta, a new work area layout has been implemented for some employees, the remainder are awaiting a decision about a possible relocation of the operation.

## **C. Quality, Service and Labor Utilization**

### **In Phase I, (Quick Results)**

- The Hopper was developed, preliminary work estimates were developed and an approach to measure quality and service was established.

### **Phase II, (Main Installation)**

- The Hopper has been installed and is being used as a work simulation to evaluate Service Representative performance (Quality and Productivity) capabilities, and as a supplement to the workload to enable the managers to meet performance expectations.
- Work to Time Relationships (RE's) have been established for each activity that the LCSC currently performs.
- Quality measures have been established and will be measured by Service Representative. There will be two quality measures, First Time Quality and Orders Pending on the Questionable Activity Report. First Time Quality will measure the ability of the Service Representative to process an order, error free. Orders Pending on the Questionable Activity Report will ensure that orders are cleared on a timely basis when and if they have errors. Reformatting of the Questionable Activity Report is complete.
- Service measures have been established: (See Service Indicators Chart)
  - Order processing duration is measured in hours from the point of receipt to firm order commitment time (FOC). In May average duration was 56.9 hours. First week of July average duration 30.9 hours, a 46% improvement.
  - Percent of LSRs processed within 48 hours in May was 50%, the first week of July was 76%, a 52% improvement.
  - Percent of calls answered within 16 seconds is about 90%. Trend from May through June has 5% improvement trend.
  - Percent of calls abandoned is about 17%. Trend from May through June has a 23% improvement trend.
- The Service indicators demonstrate a significant improvement and are currently meeting reasonable expectations. In Phase III new targets will be established.
- Productivity has improved 74% since first two weeks of Project, as measured in LSRs processed per hour. (See Three Part Graph - LSRs Per Hour)
- When measured by SOCS orders generated, the Productivity improvement is 94%. (See Three Part Graph - SOCS Orders Per Hour)
- From March 23rd through July 6th, SOCS orders generated has increased at a rate of 12% per week. (See SOCS Orders Generated Graph)



#### **IV Support Organization**

##### **A. Force Sizing / Forecast Feedback Loop**

###### **In Phase I, (Quick Results)**

- An activity based force-sizing model was developed.

###### **Phase II, (Main Installation)**

- Defined and began tracking key forecast indicators by Resale, UNE and Complex.
- Changes made to Order Tracking System to provide more definition to types of LSRs being processed.

##### **B. Project Schedule**

###### **In Phase I, (Quick Results)**

- Defined what a Project Schedule should be, developed format and defined Key events.

###### **Phase II, (Main Installation)**

- Project Schedule developed with appropriate level of detailed activities to focus the actions of the support organization and better insure they are working on the appropriate items.
- Schedule dates have been developed to better communicate expectations and priorities.
- Structured weekly staff meetings have been installed with status reports and status to schedule. It also gives them the ability to get assistance on items that may be in danger of missing scheduled due dates.

##### **C. Capabilities**

###### **In Phase I, (Quick Results)**

- The Hopper concept was developed to enable artificial work to be input in order to test capabilities.

###### **Phase II, (Main Installation)**

- The Hopper has been installed into the LCSC operations and has provided the ability to not only tests the departmental theoretical capabilities but also the individual Service Representative capabilities.
- Current staffing and demonstrated performance place the LCSC capabilities at 2065 LSRs per day. In the month of June, 23% of the work force was either in training, absent or on vacation, therefore the true tested capability of 1590 LSRs per day is more than twice the current level of work sent in by the CLECs. (See Capacity Graph)